

NOTES AND STATISTICS

ON

VACCINATION IN BURMA

FOR THE YEAR 1908-09



RANGOON

OFFICE OF THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA

1909

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# NOTES AND STATISTICS

ON

## VACCINATION IN BURMA

FOR THE YEAR 1908-09.

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1. *Establishment*.—Forty-eight Native Superintendents and 259 Vaccinators Statement II. were employed during the year under review. There was an increase of six Vaccinators, distributed as follows:—

Pakôkku District three, Katha District two, and Meiktila District one.

2. *Training School*.—Fourteen Native Superintendents and ten Vaccinators underwent training at the Meiktila Vaccine Depôt during the year. Difficulty is still found in enlisting men with sufficiently thorough elementary education to understand and profit by the education they receive at the depôt. Only a proportion of those examined at the end of the course of six months training attain the minimum 50 per cent. of possible marks necessary to qualify.

3. *Work performed during the year*.—Excluding dispensary operations, the Statement I. total work performed in the Province in 1908-09 was 382,326 operations, which is less by 5,076 than in the previous year. The following 12 districts show an increase of works, namely, Kyaukpyu (3,461), Shwebo (2,000), Sagaing (1,769), Tharrawaddy (1,620), Bassein (1,155), Minbu (1,108), Tavoy (746), Chin Hills (422), Ma-ubin (960), Hanthawaddy (718), Prome (418), and Southern Shan States (8,353). Twenty-six districts show a falling off, the largest decreases being—Akyab (3,933), Upper Chindwin (3,101), Myingyan (2,198), Meiktila (2,571), Pegu (1,491), Yamèthin (1,466), Rangoon (1,515), Thatôn (1,645), Sandoway (1,118), Henzada (532), Mergui (660), Toungoo (700), Lower Chindwin (929), Kyaukse (1,283), Thayetmyo (1,071), and Amherst (1,049).

If, for the sake of further analysis, we exclude the Municipality of Rangoon and Native States and Hill Tracts, we find that the total decrease in the work done in the more settled districts is 11,776 operations less than in the preceding year. The Arakan Division shows a decrease of 1,590, confined to Akyab and Sandoway Districts, Kyaukpyu showing an increase of 3,461. The Pegu Division shows a total increase of 1,265, shared in by all districts except Pegu, which has a deficit of 1,491. The Irrawaddy Division shows a total increase of 854, confined to Ma-ubin and Bassein, the combined decrease of the other districts Henzada, Myaungmya, and Pyapôn being 1,261. The Tenasserim Division (excluding Salween Hill Tracts) shows a total decrease of 3,308. Of the five districts, Tavoy alone returns an increase of 746. The Mandalay Division shows a total decrease of 919, the Ruby Mines District alone returning an increase of 38. Sagaing Division shows a decrease of 261. The considerable increase of 3,769 in the Shwebo and Sagaing Districts was discounted by the decrease in Upper and Lower Chindwin Districts, respectively, of 929 and 3,101 totalling 4,030 operations. Magwe Division shows a decrease of 299, in three out of the four districts, Minbu alone showing an increase of 1,108. Meiktila Division shows a total decrease in all four districts of 7,518, all the districts showing a decrease of over 1,000 operations.

The Civil Surgeons of districts submit various explanations for the decrease, among which are the following—Meiktila Division and Toungoo and Bhamo Districts and Taungdwingyi Town, unsettled condition of the people due to widespread epidemics of plague and cholera. Pyapôn and Mergui District and Pakôkku town, absence of epidemic small-pox. Myingyan, emigration of the poor classes on account of scarcity. Lower Chindwin, difficulty in getting children owing to lack of co-operation of the *Ywathugyis*. In Upper Chindwin, Sandoway, Katha, Myitkyina, and Henzada the falling off is explained as due to inefficiency, or numerical inadequacy of the staff, several vaccinators being dismissed, under suspension, or on leave. In Henzada and Akyab, passive opposition by the people and their preference for inoculation is preferred as the cause of the decrease. Many of



the explanations offered are reasonable and must be accepted as accounting for the decrease in the outturn of work. In several instances the obstacles to vaccination were the subject of correspondence during the year. In the Henzada District, for instance, there has long been a difficulty in getting men of reliability and energy to work as vaccinators in the district. The service is unpopular in this district and good men will not stay. The altogether unreliable statistics of work done, furnished by the older vaccinators, resulted in the dismissal of the worst offenders by the Civil Surgeon in the previous year, and in spite of much effort on his part, this officer has not been able to make any great headway against the prevailing apathy of the people and their distaste for the operation. Until all grades of Civil Officers in this district unite to persuade the people to accept the operation, and a better class of vaccinators can be induced to remain in the district, no marked progress is to be expected. There is no doubt that the severe plague and cholera epidemics, which have visited the Meiktila Division during the year, have produced an effect detrimental to the performance of vaccination in many parts of the districts. A similar factor was at work in the Toungoo District, and in some instances the Civil Surgeon and Vaccinators were refused admission to the villages. No doubt other districts were affected to some extent in the same way. It has, however, to be remarked that the severe plague and cholera outbreaks in the Tharrawaddy District did not prevent the increase of vaccination work in that district. The same remark applies to the Prome and Bassein Districts. The effect produced by a small-pox epidemic in increasing the outturn of vaccination work is well recognised, but the plea put forward by the Civil Surgeon of Pyapôn that the falling off in the year under review is to be explained by the absence of small-pox does not carry weight, since there was no more small-pox in that district in the preceding year than in 1908-09. In the Pakôkku District, where there was a severe small-pox epidemic in 1907, the outturn of work rose by 796 primary operations in consequence of the vaccination staff being augmented in the year under review; there was, as might have been expected, a decrease in revaccinations consequent on the cessation of the epidemic.

The large increase in the outturn of work in the Southern Shan States, nearly all in primary operations, was due to improved organisation of the vaccination staff, and to the special efforts made by the Civil Surgeons of Taunggyi and Loimwe, and is much to their credit.

Statement I. 4. *Primary Vaccination.*—In 40 districts there was a total decrease of 5,117 primary operations.

Appendix B. 5. *Infantile Vaccination in towns.*—A total of 19,981 primary vaccinations on infants under 12 months of age were successful, in 45 towns, as compared with 19,530 in 44 towns in 1907-08 an increase of 451 over the work of the previous year. Twenty-two towns show a definite increase in the number of successful operations on infants. In Rangoon the excess was 309, and in Paungdè 179. Gyobingauk, Letpadan, and Thônzè between them show an increase of 182, Toungoo of 216, and Allanmyo of 178. Pyapôn, Wakèma, and Bassein all show a creditable increase. Several towns show a considerable falling off in this branch of the work. This is observed in all the towns of the Arakan Division. In Myanaung the number of successful operations on infants fell from 464 to 226, and in Ngathainggyaung from 96 to 20. In Tavoy the decrease was 284, in Zalun 186, and in Pakôkku 143.

Statement I. 6. *Percentage of success obtained.*—The average successful results in primary vaccination for the whole province was 93·58 per cent. of operations. This is higher than in any previous year, and compares favourably with the 91·78 of 1907-08. In different districts the percentage of success varied from 98·82 in Rangoon, to 82·44 in the Ruby Mines District. The highest percentage of successes in districts was achieved in Lower Chindwin (98·57), Meiktila (98·51), and Mandalay (97·24). The districts showing the lowest percentages of success were Ruby Mines (82·44), Salween (82·81), and Northern Shan States (86·56). The Superintendent, Meiktila Depôt, writes, "the quality has been exceedingly good throughout the year. The returns received for 257,284 cases give a percentage success of 92·98, or practically 93, compared with 91·2 of 1907-08, and 90·65 of 1906-07."



7. *Dispensary Vaccination*.—Fourteen thousand and eighty-seven persons were vaccinated at dispensaries in 1908-09 against 19,131 in the previous year. There was a falling off in this branch of the work of 5,044 operations. The percentage of successes in primary operations fell from 95·32 in 1907-08 to 94·24 in the year under review; in revaccinations, there was an increase in percentage of success from 60·18 to 64·25. The decrease was in both primary and revaccinations. Of the total successfully vaccinated, only 774 were children under 12 months of age. The remainder were about equally distributed between the ages above and below six years. It is observed that this falling off in dispensary vaccination occurred in nearly all districts, the exceptions being Bassein, Amherst, Mergui, Toungoo, Thatôn, Salween, Mandalay, Katha, Ruby Mines, and Magwe. No satisfactory explanation is afforded of this decrease of activity. Doubtless the causes which have already been adverted to as explaining the falling off in district vaccination apply in some degree also to the vaccination work at the dispensaries. This fall in Dispensary vaccination is sudden, since the number of operations at dispensaries had risen steadily up to the year under review. The numerical loss in operations performed amounts to 5,044, almost equal to the decrease in the district work of the province. Statement III.

8. *Verification*.—During the year under review 33,589 primary operations and 11,311 revaccinations were verified by Civil Surgeons, against 47,420 primary and 12,828 revaccinations in the previous year. Native Superintendents of Vaccination verified 140,072 primary and 21,242 revaccinations against 140,550 primary and 24,917 revaccinations in 1907-08. The percentage of operations verified by Deputy Sanitary Commissioner and Civil Surgeons in the two years 1908-09, and 1907-08, respectively, was in primary cases 9·79 and 13·51 and in revaccinations 21·17 and 23·09. Native Superintendents verified 40·84 per cent. of primary operations and 39·75 of revaccinations against 40·05 and 44·85 in the previous year. The decrease in verification work performed was thus considerable, and is in most cases unexplained. The decrease in the Meiktila District was, however, due to the Native Superintendent of Vaccination being detained at headquarters until near the end of the year to assist in training vaccinators. With the exception of Meiktila, there was no falling off generally in the work of the Native Superintendents. It is satisfactory to be able to record that the total number of operations on infants found successful and also the total number of persons successfully vaccinated over six years of age was larger than in the previous year. Statement V.

9. *Lymph Supply: the Vaccine Dépôt, Meiktila*.—The vaccine lymph used throughout the whole province, with the exception of the Rangoon Municipality, was supplied from the Meiktila Vaccine Dépôt. Lymph sufficient for 529,189 operations was issued from the dépôt during the year. The issue was larger than in the previous year by 2,074 cases, but less than in 1906-07. The cost of manufacture of the vaccine paste was the same as last year, namely, 2·8 pies per case. The greater part of the lymph issued was glycerinated, only sufficient lanoline vaccine for 61,200 operations, and quinated vaccine for 8,295 operations being despatched. Two hundred and seventy one calves were vaccinated against 263 in the previous year. The total weight of vaccine pulp obtained from the calves was greater than in previous years, being 179·2 ounces. The average yield in grains per calf was 289·40 against 308 grains in 1906-07. The largest yield from any one calf was 600 grains, the average quantity required for a single operation was 0·14 grain. The Superintendent complains that at several stations there was a great and unnecessary wastage of vaccine. Thus, at the three stations of Bogale, Kyaiklat, and Danubyu 4,410 grains were received and only 963 operations performed. At Bhamo 8,340 grains produced only 3,893 operations. In some cases the difficulty experienced in obtaining subjects promptly for operation is a reasonable excuse for this waste, as at Loilem and Lashio. This excuse ought not to be put forward in settled districts such as Pyapôn and Ma-ubin, however, and the backward condition of vaccination in those districts is the true explanation of the wasteful use of the vaccine. Glycerinated lymph was found to give better results than the other preparations. The post of Superintendent of the Meiktila Vaccine Dépôt was filled by Major J. Entrican. Statement I.



M.D., I.M.S., until December 1908, and subsequently by Captain J. Good, I.M.S., to the end of the year. The perfection to which the manufacture of the vaccine has been brought during his incumbency of the post is the best testimony to the devotion, skill, and inventive genius displayed during several years by the late Superintendent, Major Entrican, and it is with much regret that I have to record the loss by this Department of his services owing to his being compelled by ill health to take leave. The present incumbent, Captain Good, has carried on the work with the greatest zeal since he assumed office, and merits my thanks for his services.

10. *The Rangoon Municipal Vaccine Dépôt.*—Work was as in former years carried out at the vaccination station at the Municipal Office. In spite of unfavourable surroundings, which have been considered responsible for unsatisfactory results obtained from the vaccine prepared at this dépôt in previous years, the lymph has throughout the year been of excellent quality, and a percentage of 98·95 successes was obtained in primary operations. The new vaccine dépôt in Kandawgalay is said to be ready now for occupation and work will be commenced there shortly. This dépôt was sanctioned by the Municipal Committee in March 1907, and there has been much delay in carrying out the scheme.

Statement II.

11. *Cost of the Department.*—The total expenditure on establishment, travelling allowance, and contingencies during the year 1908-09 was Rs. 1,49,847-3-4 against 1,38,604-7-4 in 1907-08. The increase in cost was due to (a) Establishment, increase Rs. 9,395-4-1. (b) Travelling allowance, increase 4,785-5-9. The total increase was, therefore, Rs. 11,242-12-0. The average cost of each successful operation was Re. 0-7-5 against Re. 0-6-11 in the previous year. The cost varied greatly in different districts, being only Re. 0-2-3 in Sagaing, Re. 0-3-1 in Lower Chindwin, and Re. 0-3-9 in Katha. On the other hand, it was as high as Rs. 2-12-4 in the Northern Shan States, Rs. 2-1-1 in Pyapôn, and Re. 0-14-6 in Hanthawaddy. The high cost of vaccination in the Hanthawaddy and Pyapôn Districts was due to the very poor work performed in those districts, in proportion to the large staffs employed. The increase on establishment is explained by the appointment of additional Native Superintendents for nine districts and of additional permanent Vaccinators. These men were sanctioned from 1st of March 1908, but were entertained during the year under review, and were employed during the entire year. Six temporary vaccinators were employed for six months in Pakôkku District.

12. *Inoculation and attitude of the people.*—Inoculation is still practised in certain districts, especially in the Arakan Division, and in the Irrawaddy and Pegu Divisions. It is precisely in those Districts where vaccination is backward that the people are most addicted to the practice of inoculation, and *per contra*, hostile to vaccination. The districts of Akyab, Henzada, Pyapôn, and Ma-ubin are among those in which least advance has been made of late years in popularising vaccination. Hanthawaddy District is another stronghold of inoculation where the progress of vaccination has halted for years past.

13. *Legislation.*—An act for the prevention of inoculation and the licensing of Vaccinators became law during the year. Inoculation will hereafter be a criminal offence in those districts to which the Act may be from time to time applied. It has been arranged to apply the Act first to the Hanthawaddy and Pegu Districts. An act for the improvement of vaccination in Rangoon Town and port has recently received the approval of the Governor-General and came into force on the 24th of May 1909. It provides for the compulsory vaccination of all persons coming to Burma to work as labourers, who are unprotected from small-pox, and gives additional powers to the Municipal Committee for vaccinating the occupants of factories and lodging houses.

C. E. WILLIAMS, MAJOR, M.D., D.P.H., I.M.S.,

*Superintendent-General of Vaccination, Burma.*

RANGOON, 25th May 1909.

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## A.—VACCINATION

STATEMENT NO. I.—*Showing particulars of Vaccination in the*

No.	Circles and Districts.	Popula- tion of district according to census of 1901.	Average popula- tion per square mile.	Average number of vacci- nators employ- ed through- out the year.	Total number of persons vaccinated.	Average number of per- sons vacci- nated by each vacci- nator.	PRIMARY VACCINATION.				
							Total.	Successful.			Un- known.
								Under one year.	One and under six years.	Total of all ages.	
1	2	3	4	5	6	7	8	9	10	11	12
ARAKAN DIVISION.											
1	Akyab ...	481,666	94	10	Males. 7,721 Females. 6,855 Total. 14,576	1,458	13,935	1,966	5,583	12,521	171
2	Hill Tracts, Northern Arakan ...	20,682	4	2	805	434	1,239	645	1,153	1,067	31
3	Kyaukpadaung ...	168,827	38	6	5,700	5,509	11,209	1,863	10,846	9,256	859
4	Sandoway ...	90,927	24	3	1,127	960	2,087	696	1,963	1,779	...
	Total ...	762,102	41	21	15,353	13,808	29,161	1,389	27,902	24,623	1,061
PEGU DIVISION.											
5	Rangoon ...	252,155	8,996	* 3	25,462	3,784	29,246	9,749	6,543	3,539	1,093
6	Hanthawaddy ...	437,537	155	6	2,596	2,723	5,324	887	4,493	2,741	183
7	Pegu ...	339,572	79	8	3,725	3,116	7,441	930	6,965	4,301	199
8	Tharrawaddy ...	395,570	139	8	5,007	5,149	10,156	1,270	10,143	3,020	194
9	Prome ...	365,804	125	12	7,033	6,026	13,059	1,033	12,149	4,257	372
	Total ...	1,820,633	139	37	43,823	21,403	65,226	1,763	40,393	12,661	2,046
IRRAWADDY DIVISION.											
10	Ma-ubin ...	233,347	173	4	1,610	1,573	3,183	796	2,878	791	...
11	Pyapön ...	224,939	106	6	1,045	959	2,004	334	1,633	654	2
12	Bassein ...	391,427	95	10	7,993	6,500	14,498	1,450	13,245	3,313	6,065
13	Henzada ...	484,553	169	15	7,453	6,938	14,591	959	14,001	6,318	1,055
14	Myaungmya ...	279,398	105	7	4,575	4,477	9,052	1,293	8,902	2,605	390
	Total ...	1,663,669	124	42	22,681	20,447	43,128	1,027	40,659	11,602	2,052
TENASSERIM DIVISION.											
15	Amherst ...	300,173	43	9	13,261	7,839	21,100	2,341	20,431	3,351	627
16	Tavoy ...	109,979	21	5	5,071	6,150	11,221	2,244	7,247	1,846	1,060
17	Mergui ...	88,744	9	4	3,439	3,099	6,538	1,635	6,474	714	142
18	Toungoo ...	279,315	45	7	4,355	3,034	7,389	1,056	6,085	1,919	506
19	Thaton ...	343,510	63	6	4,190	4,692	8,882	1,430	8,780	2,146	...
20	Salween ...	37,837	14	1	793	531	1,324	1,324	739	159	...
	Total ...	1,159,558	32	32	31,109	25,345	56,454	1,764	49,756	9,993	2,335
MANDALAY DIVISION.											
21	Mandalay ...	366,507	173	10	7,112	6,516	13,628	1,363	11,970	6,393	8
22	Bhamo ...	79,515	19	4	2,074	1,819	3,893	973	3,412	1,193	282
23	Katha ...	176,223	25	4	2,091	1,792	3,886	972	3,886	591	91
24	Ruby Mines ...	87,694	16	4	1,708	1,529	3,237	809	3,237	701	594
25	Myittha ...	67,399	6	2	720	563	1,283	642	1,274	124	15
	Total ...	777,338	26	24	13,708	12,219	25,927	1,080	23,779	9,007	990
SAGAING DIVISION.											
26	Shwebo ...	236,891	51	8	5,981	6,263	12,244	1,531	11,991	3,109	374
27	Sagaing ...	232,653	152	6	9,873	10,943	20,816	3,469	15,382	7,276	356
28	Lower Chindwin ...	276,383	79	6	7,511	7,340	14,851	2,480	12,984	5,438	2
29	Upper Chindwin ...	151,551	8	6	3,670	3,632	7,352	1,225	7,352	617	433
	Total ...	1,000,483	33	26	27,065	28,223	55,293	2,127	47,709	16,440	1,215
MAGWE DIVISION.											
30	Thayetmyo ...	239,706	50	8	6,941	7,030	13,971	1,746	13,734	2,704	847
31	Paköku ...	356,439	57	9	7,937	7,416	15,353	1,706	14,978	3,211	478
32	Minbu ...	233,377	71	7	4,120	4,183	8,303	1,186	8,257	2,149	113
33	Magwe ...	246,703	85	8	5,748	6,850	12,598	1,575	12,347	3,930	265
	Total ...	1,076,280	63	32	24,746	25,479	50,225	1,570	49,316	11,994	1,708
MEIKTILA DIVISION.											
34	Meiktila ...	252,305	116	6	3,058	3,133	6,196	1,033	6,184	861	84
35	Yamethin ...	243,197	57	7	4,935	4,803	9,743	1,392	9,590	3,222	503
36	Kyaukse ...	141,253	111	3	2,143	2,215	4,363	1,454	4,227	2,497	71
37	Myingyan ...	356,052	114	7	6,676	6,886	13,562	1,937	13,078	3,426	389
	Total ...	992,607	91	23	16,817	17,047	33,864	1,472	33,079	10,006	1,047
SHAN STATES.											
38	Northern Shan States ...	321,090	22	8	1,092	940	2,032	254	2,001	19	364
39	Southern Shan States ...	816,354	19	11	9,580	9,004	18,584	1,689	18,434	2,379	527
	Total ...	1,137,444	20	19	10,672	9,944	20,616	1,085	20,435	2,398	891
CHIN HILLS											
40	Chin Hills ...	87,139	11	3	1,677	755	2,432	811	2,337	1	493
	GRAND TOTAL ...	10,477,508	45	259	207,651	174,675	382,326	1,476	335,415	87,543	13,838

FOOT-NOTE.—The figures given under "Primary Vaccination" and "Re-vaccination" respectively do not include second operations in these operations in the figures shown in this

\* This number excludes 16 Registrar

† Statistics of Pyapön have

NOTE.—Area and population of the



## DEPARTMENT.

Province of Burma during the year 1908-09 (Paragraphs 3, 4, 6 and 8).

RE-VACCINATION.			PERCENTAGE OF SUCCESSFUL CASES IN WHICH THE RESULTS WERE KNOWN.		Persons successfully vaccinated per 1,000 of population.	PERCENTAGE OF UNKNOWN CASES TO TOTAL CASES.		AVERAGE ANNUAL NUMBER OF PERSONS SUCCESSFULLY VACCINATED DURING PREVIOUS FIVE YEARS.		AVERAGE ANNUAL NUMBER OF DEATHS FROM SMALL-POX DURING PREVIOUS FIVE YEARS.		No.
Total.	Successful.	Unknown.	Primary.	Re-vaccination.		Primary.	Re-vaccination.	No.	Ratio per 1,000.	No.	Ratio per 1,000.	
13	14	15	16	17	18	19	20	21	22	23	24	25
641	418	30	90.97	68.41	26.86	1.23	4.63	11,274	23.41	154	.32	1
131	103	...	94.63	82.44	56.81	2.68	...	939	45.39	...	...	2
363	188	106	92.63	73.15	55.94	7.92	29.20	5,631	33.35	54	.32	3
124	33	...	90.63	26.61	19.93	...	...	2,043	22.53	6	.07	4
1,259	747	136	91.74	66.52	33.29	3.80	10.80	19,392	26.10	214	.28	
22,703	9,516	6,767	98.82	59.71	59.08	16.78	29.81	12,521	50.35	377	1.52	5
831	323	26	89.70	140.12	8.96	4.07	3.13	3,616	7.68	556	1.18	6
476	404	18	95.80	88.21	20.28	2.86	3.78	9,691	29.13	208	.61	7
13	7	...	92.62	53.85	23.31	1.91	...	12,251	30.97	352	.89	8
810	337	209	96.26	56.07	32.18	3.04	25.80	14,498	39.63	191	.52	9
24,833	10,587	7,020	94.86	59.43	25.80	5.07	28.27	52,776	28.99	1,683	.92	
305	139	...	97.32	45.57	10.88	...	...	6,258	12.43	416	.83	10
371	249	2	94.30	67.43	7.94	.12	.54	*	*	*	*	11
1,253	512	162	96.38	46.93	32.43	4.57	12.93	15,807	40.38	235	.60	12
390	165	31	93.40	45.96	25.29	7.54	7.95	31,696	65.41	300	.62	13
150	68	10	95.30	48.57	29.23	4.33	6.67	8,569	30.15	271	.95	14
2,469	1,133	205	95.12	50.04	22.76	5.05	8.30	62,330	37.47	1,222	.73	
669	333	56	91.47	54.32	63.43	3.07	8.37	18,347	61.12	113	.38	15
3,974	1,260	324	90.93	34.52	62.61	14.63	8.15	9,015	82.24	4	.01	16
64	32	5	89.97	54.24	64.56	2.19	7.81	5,309	59.83	7	.04	17
1,304	512	207	94.41	46.67	20.69	8.32	15.87	7,493	26.86	127	.49	18
103	17	...	90.17	16.67	23.10	...	...	5,840	17.00	133	.39	19
585	244	2	82.81	41.85	22.62	...	.34	745	19.68	...	...	20
6,698	2,398	594	92.42	39.29	39.86	4.69	8.87	46,784	40.35	385	.35	
1,658	1,098	11	97.24	66.67	34.73	.07	.66	11,562	31.60	118	.34	21
431	187	91	92.52	47.95	38.77	8.26	18.92	3,258	40.98	...	...	22
...	...	...	95.34	...	20.53	2.34	...	2,837	16.10	...	...	23
...	...	...	82.44	...	24.35	18.35	...	2,520	28.73	...	...	24
9	2	...	88.48	22.22	16.56	1.18	...	1,044	15.49	...	...	25
2,148	1,287	102	94.03	62.90	29.24	4.16	4.75	21,241	27.33	...	...	
253	153	38	95.05	73.49	39.04	3.12	15.02	11,042	38.49	31	.11	26
5,434	3,991	330	96.93	78.19	65.65	2.31	6.07	13,844	43.98	88	.31	27
1,897	1,314	13	93.57	69.75	51.05	.02	.69	12,530	45.33	16	.06	28
...	...	...	90.51	...	40.23	6.57	...	9,069	53.68	...	...	29
7,584	5,463	381	95.97	75.34	50.06	2.55	5.02	46,435	46.46	135	.16	
237	151	28	88.41	72.25	48.16	6.17	11.81	12,847	53.60	23	.10	30
375	83	37	95.77	24.56	39.18	3.19	9.87	8,150	22.86	173	.58	31
46	25	3	95.49	58.14	33.41	1.43	6.52	6,093	26.11	2	.01	32
251	165	45	95.51	80.10	47.44	2.15	17.93	11,172	45.23	33	.13	33
909	424	113	93.66	53.27	41.82	3.46	12.43	38,263	35.55	230	.24	
12	11	...	98.51	91.67	23.86	1.36	...	8,954	35.49	40	.16	34
153	116	27	93.40	92.06	35.37	5.25	17.65	10,003	41.13	92	.39	35
136	121	5	90.93	92.37	27.61	1.68	3.68	4,629	32.77	1	.00	36
484	223	47	92.39	51.03	33.55	2.97	9.71	11,115	31.22	142	.40	37
785	471	79	93.65	66.71	30.69	3.17	10.06	34,701	34.95	275	.28	
31	19	6	86.56	76.00	4.47	18.19	19.35	4,693	14.62	...	...	38
150	130	13	87.26	94.89	19.30	2.86	8.67	8,154	9.99	...	...	39
181	149	19	87.20	91.98	15.11	4.36	10.50	12,848	11.30	...	...	
45	16	27	89.07	88.89	19.53	20.65	60.00	1,347	15.45	...	...	40
46,911	22,675	8,676	93.58	59.30	30.89	4.13	18.49	336,668	32.13	...	...	

performed in consequence of the failure of a first Vaccination or re-vaccination, but the orders of the Government of India to include statement will be observed in future statements.  
 Vaccinators whose work has been included,  
 been included in Maubin.  
 Pakokku Chin Hills have been excluded.



## A.—VACCINATION

STATEMENT NO. II.—*Showing the cost of the Department in the*

No.	Circles and Districts.	EXPENDITURE.										
		European super- vising officers.	Pay.	Native super- vising officers.	Pay.	Vaccinators.	Pay.	Clerks.	Pay.	Peons, etc.	Pay.	Total pay of establish- ment.
1	2	3	4	5	6	7	8	9	10	11	12	13
ARAKAN DIVISION.												
			Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.	Rs. A. P.
1	Akyab ... ..	...	.....	2	825 0 0	10	2,603 11 10	...	.....	...	.....	3,428 11 10
2	Hill Tracts, Northern Arakan...	...	.....	...	.....	2	672 6 8	...	.....	...	.....	672 6 8
3	Kyaukpypu ... ..	...	.....	*1	.....	6	1,638 9 6	...	.....	...	.....	1,638 9 6
4	Sandoway ... ..	...	.....	1	100 0 0	3	862 9 10	...	.....	...	.....	962 9 10
	Total ... ..	...	.....	4	925 0 0	21	5,777 5 10	...	.....	...	.....	6,702 5 10
Pegu DIVISION.												
6	Rangoon... ..	...	.....	...	.....	3	2,955 12 0	...	.....	4	573 3 0	3,528 15 0
6	Hanthawaddy ... ..	...	.....	3	600 0 0	6	1,641 0 6	...	.....	...	.....	2,241 0 6
7	Pegu ... ..	...	.....	3	390 0 0	8	2,354 7 6	...	.....	...	.....	2,744 7 6
8	Tharrawaddy ... ..	...	.....	1	610 0 0	8	2,375 5 11	...	.....	...	.....	2,985 5 11
9	Prome ... ..	...	.....	1	600 0 0	12	3,465 8 0	...	.....	...	.....	4,065 8 0
	Total ... ..	...	.....	8	2,200 0 0	37	12,792 1 11	...	.....	4	573 3 0	15,565 4 11
IRRAWADDY DIVISION.												
10	Ma-ubin ... ..	...	.....	1	600 0 0	4	1,012 14 5	...	.....	...	.....	1,612 14 5
11	Pyapön ... ..	...	.....	1	600 0 0	6	1,839 15 11	...	.....	...	.....	2,439 15 11
12	Bassein ... ..	...	.....	2	840 0 0	10	2,573 5 7	...	.....	...	.....	3,413 5 7
13	Henzada ... ..	...	.....	1	600 0 0	15	4,102 8 8	...	.....	...	.....	4,702 8 8
14	Myaungmya ... ..	...	.....	1	600 0 0	7	1,791 11 2	...	.....	...	.....	2,391 11 2
	Total ... ..	...	.....	6	3,240 0 0	42	11,320 7 9	...	.....	...	.....	14,560 7 9
TENASSERIM DIVISION.												
15	Amherst ... ..	...	.....	2	1,200 0 0	9	2,441 4 0	1	120 0 0	...	.....	3,761 4 0
16	Tavoy ... ..	...	.....	1	600 0 0	5	1,186 9 0	...	.....	...	.....	1,786 9 0
17	Mergui ... ..	...	.....	1	600 0 0	4	976 8 0	...	.....	...	.....	1,576 8 0
18	Toungoo ... ..	...	.....	1	600 0 0	7	1,557 0 0	...	.....	...	.....	2,157 0 0
19	Thaton ... ..	...	.....	1	591 9 10	6	1,862 0 6	...	.....	...	.....	2,453 10 4
20	Salween ... ..	...	.....	...	.....	1	300 0 0	...	.....	...	.....	300 0 0
	Total ... ..	...	.....	6	3,591 9 10	32	8,323 5 6	1	120 0 0	...	.....	12,034 15 4
MANDALAY DIVISION.												
21	Mandalay ... ..	...	.....	1	599 0 0	10	3,841 14 0	...	.....	...	.....	4,440 14 0
22	Bhamo ... ..	...	.....	...	.....	4	1,263 2 5	...	.....	...	.....	1,263 2 5
23	Katha ... ..	...	.....	...	.....	4	528 10 8	...	.....	...	.....	528 10 8
24	Ruby Mines ... ..	...	.....	1	56 6 10	4	1,510 2 0	...	.....	...	.....	1,566 8 10
25	Myitkyina ... ..	...	.....	...	.....	2	711 6 1	...	.....	...	.....	711 6 1
	Total ... ..	...	.....	2	655 6 10	24	7,855 3 2	...	.....	...	.....	8,510 10 0
SAGAING DIVISION.												
26	Shwebo ... ..	...	.....	1	591 10 8	8	2,041 1 5	...	.....	...	.....	2,632 12 1
27	Sagaing ... ..	...	.....	*1	.....	6	1,700 9 1	...	.....	...	.....	1,700 9 1
28	Lower Chindwin ... ..	...	.....	1	550 0 0	6	1,680 8 11	...	.....	...	.....	2,230 8 11
29	Upper Chindwin ... ..	...	.....	*1	.....	6	1,867 7 10	...	.....	...	.....	1,867 7 10
	Total ... ..	...	.....	4	1,141 10 8	26	7,289 11 3	...	.....	...	.....	8,431 5 11
MAGWE DIVISION.												
30	Thayetmyo ... ..	...	.....	1	600 0 0	8	2,259 7 2	...	.....	...	.....	2,859 7 2
31	Pakkoku ... ..	...	.....	1	600 0 0	9	2,314 7 8	...	.....	...	.....	2,914 7 8
32	Minbu ... ..	...	.....	*1	.....	7	1,916 3 1	...	.....	...	.....	1,916 3 1
33	Magwe ... ..	...	.....	2	640 0 0	8	1,693 4 2	...	.....	...	.....	2,333 4 2
	Total ... ..	...	.....	5	1,840 0 0	32	8,183 6 1	...	.....	...	.....	10,028 6 1
MEIKTILA DIVISION.												
34	Meiktila Vaccine Depot ...	1	600 0 0	1	1,200 0 0	†	681 8 2	2	1,260 0 0	8	1,292 13 3	5,034 5 5
35	Meiktila ... ..	...	.....	†1	5,133 10 5	6	1,514 5 2	...	.....	...	.....	6,652 15 7
36	Yamethin ... ..	...	.....	2	655 0 0	7	1,892 5 3	...	.....	...	.....	2,547 5 3
37	Kyaukse ... ..	...	.....	*1	.....	3	955 15 0	...	.....	...	.....	955 15 0
38	Myingyan ... ..	...	.....	1	600 0 0	7	1,539 6 2	...	.....	...	.....	2,169 6 2
	Total ... ..	1	600 0 0	6	7,593 10 5	23	6,613 7 9	2	1,260 0 0	8	1,292 13 3	17,359 15 5
SHAN STATES.												
39	Northern Shan States ...	...	.....	2	750 0 0	8	1,393 5 6	...	.....	...	.....	2,143 5 6
40	Southern Shan States ...	...	.....	5	475 0 0	11	3,109 7 7	...	.....	8	1,768 4 11	5,352 12 6
	Total ... ..	...	.....	7	1,225 0 0	19	4,502 13 1	...	.....	8	1,768 4 11	7,496 2 0
41	Chin Hills ... ..	...	.....	...	.....	3	757 9 11	...	.....	...	.....	757 9 11
	GRAND TOTAL ... ..	1	600 0 0	48	22,412 5 9	259	73,420 8 3	3	1,380 0 0	20	3,634 5 2	1,01,447 3 2

\* Under training

† Apprentice

‡ This amount includes pay of Native Superintendents of Vaccination of certain



## DEPARTMENT.

Province of Burma during the year 1908-09 (Paragraphs I and II).

Travelling allowance.	Contingen- cies.	Total cost.	PAID FROM					Total.	Number of all success- ful vaccinations and re-vaccinations.	Average cost of each successful case.	No.
			Imperial Funds.	Provincial Funds.	Local Funds.	Municipali- ties.	Native States.				
			17	18	19	20	21				
14	15	16	17	18	19	20	21	22	23	24	25
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.	
1,129 8 2	.....	4,558 4 0	.....	.....	4,206 4 0	352 0 0	.....	4,558 4 0	12,933	0 6 8	1
156 1 0	.....	828 7 8	.....	828 7 8	.....	.....	.....	828 7 8	1,175	0 11 3	2
1,285 8 6	.....	2,924 2 0	.....	.....	2,813 2 7	110 15 5	.....	2,924 2 0	9,444	0 4 11	3
600 10 0	.....	1,563 3 10	.....	.....	1,443 3 10	120 0 0	.....	1,563 3 10	1,812	0 13 10	4
3,171 11 8	.....	9,874 1 6	.....	823 7 8	8,462 10 5	582 15 5	.....	9,874 1 6	25,370	0 6 3	
478 2 9	4,434 2 8	8,441 4 5	.....	521 14 0	.....	7,919 6 5	.....	8,441 4 5	14,897	0 9 1	5
1,564 10 3	.....	3,805 10 9	.....	.....	3,905 10 9	.....	.....	3,805 10 9	4,159	0 14 6	6
1,102 6 2	.....	3,846 13 8	.....	.....	3,106 13 8	740 0 0	.....	3,846 13 8	6,886	0 8 11	7
1,549 1 9	.....	4,534 7 8	.....	.....	4,534 7 8	.....	.....	4,534 7 8	9,222	0 7 10	8
1,399 1 6	.....	5,464 9 6	.....	.....	4,549 9 6	915 0 0	.....	5,464 9 6	11,770	0 7 5	9
6,093 6 5	4,434 2 8	26,092 14 0	.....	521 14 0	15,996 9 7	9,574 6 5	.....	26,092 14 0	46,964	0 8 11	
350 1 0	.....	1,962 15 5	.....	.....	1,962 15 5	.....	.....	1,962 15 5	2,940	0 10 8	10
1,256 11 0	.....	3,696 10 11	.....	.....	3,138 13 2	557 13 9	.....	3,696 10 11	1,787	2 1 1	11
1,408 10 9	.....	4,907 0 4	.....	.....	4,172 0 4	736 0 0	.....	4,907 0 4	12,694	0 6 2	12
1,791 2 6	.....	6,493 11 2	.....	.....	5,038 11 2	1,455 0 0	.....	6,493 11 2	12,553	0 8 6	13
1,219 14 0	.....	3,611 9 2	.....	.....	3,357 1 2	254 8 0	.....	3,611 9 2	8,180	0 7 1	14
6,111 7 3	.....	20,671 15 0	.....	.....	17,669 9 3	3,002 5 9	.....	20,671 15 0	37,857	0 8 9	
1,390 15 6	27 15 6	5,180 3 0	.....	.....	4,119 3 0	1,061 0 0	.....	5,180 3 0	19,041	0 4 4	15
619 8 0	.....	2,406 1 0	.....	.....	2,163 0 0	233 1 0	.....	2,406 1 0	6,886	0 5 7	16
933 12 9	.....	2,510 4 9	.....	.....	2,270 4 9	240 0 0	.....	2,510 4 9	5,723	0 7 0	17
1,238 2 0	.....	3,395 2 0	.....	.....	2,915 2 0	430 0 0	.....	3,395 2 0	5,779	0 9 5	18
1,228 7 6	.....	3,682 1 10	.....	.....	3,377 1 10	305 0 0	.....	3,682 1 10	7,934	0 7 5	19
135 8 0	.....	435 8 0	.....	.....	435 8 0	.....	.....	435 8 0	856	0 8 2	20
5,546 5 9	27 15 6	17,609 4 7	.....	.....	15,285 3 7	2,324 1 0	.....	17,609 4 7	46,225	0 6 1	
944 3 0	17 7 10	5,402 8 10	.....	3,211 12 7	.....	2,190 12 3	.....	5,402 8 10	12,730	0 6 9	21
632 6 0	.....	1,895 8 5	.....	1,583 6 5	.....	307 2 0	.....	1,895 8 5	3,053	0 9 10	22
322 8 6	.....	851 3 2	.....	851 3 2	.....	.....	.....	851 3 2	3,618	0 3 9	23
331 15 6	.....	1,948 8 4	.....	1,152 7 11	.....	796 0 5	.....	1,948 8 4	2,179	0 14 4	24
296 12 11	1 14 0	1,010 1 0	.....	1,010 1 0	.....	.....	.....	1,010 1 0	1,116	0 14 6	25
2,577 13 11	19 5 10	11,107 13 9	.....	7,813 15 1	.....	2,497 14 3	796 0 5	11,107 13 9	22,726	0 7 10	
1,250 10 6	3 8 0	3,886 14 7	.....	3,646 14 7	.....	240 0 0	.....	3,886 14 7	11,200	0 5 7	26
928 12 0	.....	2,629 5 1	.....	2,629 5 1	.....	.....	.....	2,629 5 1	1,8556	0 2 3	27
431 5 9	6 12 0	2,718 10 8	.....	2,384 10 8	.....	334 0 0	.....	2,718 10 8	14,110	0 3 1	28
1,113 15 4	.....	2,981 7 2	.....	2,981 7 2	.....	.....	.....	2,981 7 2	6,217	0 7 8	29
3,774 11 7	10 4 0	12,216 5 6	.....	11,642 5 6	.....	574 0 0	.....	12,216 5 6	50,083	0 3 11	
976 4 0	.....	3,835 11 2	.....	.....	3,225 11 2	610 0 0	.....	3,835 11 2	1,1545	0 5 4	30
1,551 5 6	.....	4,465 13 2	.....	4,200 13 2	.....	265 0 0	.....	4,465 13 2	13,969	0 5 1	31
526 1 0	.....	2,442 4 1	.....	1,842 4 1	.....	600 0 0	.....	2,442 4 1	7,797	0 6 0	32
1,013 7 0	.....	3,351 11 2	.....	3,051 11 2	.....	300 0 0	.....	3,351 11 2	11,704	0 4 7	33
4,067 1 6	.....	14,095 7 7	.....	9,094 12 5	3,225 11 2	1,775 0 0	.....	14,095 7 7	45,015	0 5 0	
616 12 6	4,132 11 7	9,783 13 6	.....	9,783 13 6	.....	.....	.....	9,783 13 6	.....	.....	34
787 4 3	.....	7,440 3 10	.....	7,195 3 10	.....	245 0 0	.....	7,440 3 10	6,020	1 3 9	35
961 0 3	.....	3,508 5 6	.....	2,872 5 6	.....	636 0 0	.....	3,508 5 6	8,603	0 6 6	36
456 2 0	.....	1,412 1 0	.....	1,412 1 0	.....	.....	.....	1,412 1 0	3,900	0 5 10	37
975 1 0	.....	3,144 7 2	.....	2,856 15 2	.....	237 8 0	.....	3,144 7 2	11,946	0 4 3	38
3,796 4 0	4,132 11 7	25,238 15 0	.....	24,120 7 0	.....	1,168 8 0	.....	25,238 15 0	30,469	0 13 3	
1,832 6 6	.....	3,975 12 0	.....	643 12 10	.....	.....	3,331 15 2	3,975 12 0	1,436	2 12 4	39
2,271 0 0	70 12 0	7,694 8 6	.....	7,694 8 6	.....	.....	.....	7,694 8 6	1,5755	0 7 10	40
4,103 6 6	70 12 0	11,670 4 6	.....	8,338 5 4	.....	.....	3,331 15 2	11,670 4 6	17,191	0 10 10	
462 8 0	.....	1,220 1 11	.....	1,220 1 11	.....	.....	.....	1,220 1 11	1,703	0 11 6	41
39,704 12 7	8,695 3 7	1,49,847 3 4	.....	63,580 4 11	60,639 12 0	21,499 2 10	4,127 15 7	1,49,847 3 4	3,23,603	0 7 5	

at Meiktila.

Vaccinators.

districts for the period of their training at Meiktila.

## B.—DISPENSARY

STATEMENT No. III.—*Showing Dispensary Vaccination in the*

No.	Districts.	Number of dispensaries in each district to which a vacci- nator is at- tached.	Average number of vaccinators attached to dispensaries during the year.	Total number of persons vaccinated.	Average number of persons vac- cinated by each vaccinator.	PRIMARY
						Total.
1	2	3	4	5	6	7
ARAKAN DIVISION.						
1	Akyab ... ..	.....	.....	.....	.....	.....
2	Hill Tracts, Northern Arakan ... ..	.....	.....	22	.....	2
3	Kyaukpyu ... ..	.....	.....	1,341	.....	1,216
4	Sandoway ... ..	.....	.....	318	.....	275
	Total ... ..	.....	.....	1,681	.....	1,493
PEGU DIVISION.						
5	Rangoon ... ..	.....	.....	.....	.....	.....
6	Hanthawaddy ... ..	.....	.....	2,245	.....	333
7	Pegu ... ..	.....	.....	54	.....	54
8	Tharrawaddy ... ..	.....	.....	7	.....	7
9	Prome ... ..	.....	.....	.....	.....	.....
	Total ... ..	.....	.....	2,306	.....	399
IRRAWADDY DIVISION.						
10	Ma-ubin ... ..	.....	.....	808	.....	84
11	Pyawbôn ... ..	.....	.....	.....	.....	.....
12	Bassein ... ..	.....	.....	346	.....	141
13	Henzada ... ..	.....	.....	1,371	.....	286
14	Myaungmya ... ..	.....	.....	995	.....	230
	Total ... ..	.....	.....	3,520	.....	741
TENASSERIM DIVISION.						
15	Amherst ... ..	.....	.....	57	.....	52
16	Tavoy ... ..	.....	.....	.....	.....	.....
17	Mergui ... ..	.....	.....	92	.....	92
18	Toungoo ... ..	.....	.....	85	.....	76
19	Thatôn ... ..	.....	.....	68	.....	63
20	Salween ... ..	.....	.....	45	.....	33
	Total ... ..	.....	.....	345	.....	321
MANDALAY DIVISION.						
21	Mandalay ... ..	.....	.....	523	.....	180
22	Bhamo ... ..	.....	.....	.....	.....	.....
23	Katha ... ..	.....	.....	784	.....	496
24	Ruby Mines ... ..	.....	.....	12	.....	12
25	Myitkyina ... ..	.....	.....	18	.....	18
	Total ... ..	.....	.....	1,342	.....	706
SAGAING DIVISION.						
26	Shwebo ... ..	.....	.....	52	.....	42
27	Sagaing ... ..	.....	.....	12	.....	12
28	Lower Chindwin ... ..	.....	.....	19	.....	11
29	Upper Chindwin ... ..	.....	.....	269	.....	260
	Total ... ..	.....	.....	345	.....	325
MAGWE DIVISION.						
30	Thayetmyo ... ..	.....	.....	1,261	.....	728
31	Pakōkku ... ..	.....	.....	258	.....	258
32	Minbu ... ..	.....	.....	.....	.....	.....
33	Magwe ... ..	.....	.....	112	.....	112
	Total ... ..	.....	.....	1,631	.....	1,096
MEIKTILA DIVISION.						
34	Meiktila ... ..	.....	.....	490	.....	222
35	Yamethin ... ..	.....	.....	53	.....	53
36	Kyaukse ... ..	.....	.....	.....	.....	.....
37	Myingyan ... ..	.....	.....	.....	.....	.....
	Total ... ..	.....	.....	543	.....	275
SHAN STATES.						
38	Northern Shan States ... ..	.....	.....	225	.....	167
39	Southern Shan States ... ..	.....	.....	34	.....	16
	Total ... ..	.....	.....	259	.....	183
40	Chin Hills ... ..	.....	.....	2,115	.....	2,023
	GRAND TOTAL ... ..	.....	.....	14,087	.....	7,562



VACCINATION.

Province of Burma for the year 1908-09 (Paragraph 7).

VACCINATION.			RE-VACCINATION.				PERCENTAGE OF SUCCESSFUL CASES IN WHICH THE RESULTS WERE KNOWN.		PERCENTAGE OF UNKNOWN CASES TO TOTAL CASES.		No.
Successful.			Unknown.	Total.	Successful.	Unknown.	Primary.	Re-vaccination.	Primary.	Re-vaccination.	
Under one year.	One and under six years.	Total of all ages.									
8	9	10	11	12	13	14	15	16	17	18	19
...	...	... 2	...	... 20	... 13	...	...	...	...	...	1
98	562	1,031	...	125	95	...	100.00	65.00	...	...	2
1	5	257	120	43	29	12	94.07	84.07	9.87	9.60	3
			3				94.49	67.44	1.09	...	4
99	567	1,290	123	188	137	12	94.16	77.84	8.24	6.38	
...	...	...	...	...	...	...	...	...	...	...	5
46	218	326	3	1,907	1,556	4	97.31	81.77	...	...	6
20	29	54	...	...	...	...	100.00	...	...	...	7
1	3	7	...	...	...	...	100.00	...	...	...	8
...	...	...	...	...	...	...	...	...	...	...	9
67	250	387	3	1,907	1,556	4	97.73	81.77	7.5	21	
8	27	82	2	724	493	45	100.00	72.61	2.38	6.22	10
...	...	...	...	...	...	...	...	...	...	...	11
33	72	131	7	205	91	35	97.76	53.53	4.96	17.07	12
43	156	259	20	1,035	315	1	97.37	29.16	6.99	...	13
...	...	187	22	765	331	141	89.90	53.04	9.57	18.43	14
84	255	659	51	2,779	1,230	222	95.51	48.10	6.88	7.99	
5	24	46	2	5	3	...	92.00	60.00	3.85	...	15
...	...	...	...	...	...	...	...	...	...	...	16
9	38	91	...	...	...	...	98.91	...	...	...	17
13	17	71	...	9	1	...	93.42	11.11	...	...	18
30	19	59	...	3	1	...	93.65	33.33	...	...	19
2	20	33	...	7	...	...	86.84	...	...	...	20
59	118	300	2	24	5	.....	94.04	20.83	6.2	.....	
53	65	169	5	248	188	58	96.57	64.83	2.78	16.67	21
...	...	...	...	...	...	...	...	...	...	...	22
...	...	417	49	288	203	34	93.29	79.92	9.88	11.81	23
...	6	12	...	...	...	...	100.00	...	...	...	24
1	5	18	...	...	...	...	100.00	...	...	...	25
54	76	616	54	636	391	92	94.43	71.88	7.05	14.47	
6	33	42	...	10	10	...	100.00	100.00	...	...	26
9	3	12	...	...	...	...	100.00	...	...	...	27
3	8	11	...	1	...	...	100.00	...	...	...	28
43	83	231	7	9	2	2	91.30	28.57	2.692	22.22	29
61	127	296	7	20	12	2	93.08	66.67	2.15	10.00	
190	216	640	17	535	376	2	90.27	70.54	2.34	87	30
8	53	191	60	...	...	...	96.46	...	23.26	...	31
...	...	...	...	...	...	...	...	...	...	...	32
27	83	110	...	...	...	...	98.21	...	...	...	33
225	352	941	77	535	376	2	92.35	70.54	7.03	37	
59	81	192	21	268	161	43	95.52	71.56	9.43	16.04	34
39	8	47	3	...	...	...	94.00	...	5.66	...	35
...	...	...	...	...	...	...	...	...	...	...	36
...	...	...	...	...	...	...	...	...	...	...	37
98	89	239	24	268	161	43	95.22	71.56	8.73	16.04	
...	...	...	...	...	...	...	...	...	...	...	38
2	11	87	70	58	36	...	89.69	62.07	41.92	...	39
...	10	15	1	18	18	...	100.00	100.00	6.25	...	40
2	21	102	71	78	54	...	91.07	71.05	38.80	...	
25	197	457	1,540	92	12	25	94.62	17.91	76.12	27.17	49
774	2,052	5,287	1,952	6,525	3,934	402	94.24	64.25	25.81	6.16	



COMPARATIVE STATEMENT NO. IV.—*Showing the number of persons primarily vaccinated  
Burma in each of the under*

Establishments.	PERSONS PRIMARILY									
	Total number.	Number success- fully vac- cinated.	Total number.	Number success- fully vac- cinated.	Total number.	Number success- fully vac- cinated.	Total number.	Number success- fully vac- cinated.	Total number.	Number success- fully vac- cinated.
	1899-1900.		1900-1901.		1901-02.		1902-03.		1903-04.	
	2		3		4		5		6	
Government ... ..	122,193	112,483	106,629	95,392	94,530	83,082	120,384	101,166	135,394	109,016
Municipal ... ..	72,287	69,705	62,338	58,008	52,227	46,695	55,352	47,049	53,775	44,879
Local Funds ... ..	260,518	248,803	215,111	198,789	181,107	166,283	165,218	149,585	179,917	160,616
Native States ... ..	1,764	1,631	1,574	1,420	1,822	1,553	7,053	5,451	6,712	5,624
Dispensary ... ..	6,033	5,421	6,653	4,229	3,971	3,033	6,622	5,038	8,924	6,915
ARMY.										
Europeans ... ..	28	19	23	10	20	9	25	11	...	...
Natives ... ..	782	344	391	207	114	67	359	283	380	222
Total ... ..	463,605	438,406	392,719	358,055	333,791	300,722	355,013	308,583	385,102	327,172

STATEMENT NO. V.—*Showing particulars of Vaccination verified*

No.	Districts.	TOTAL NUMBER OF PERSONS VACCINATED.		TOTAL NUMBER INSPECTED			
				By Deputy Sanitary Com- missioner or Civil Surgeons.		By Native Superintendents or other Inspecting Officers.	
				Primary.	Re-vaccination.	Primary.	Re-vaccination.
1	2	3	4	5	6	7	8
1	Akyab ... ..	13,935	641	447	359	4,079	72
2	Hill Tracts, Northern Arakan ... ..	11,160	151	.....	.....	121	22
3	Kyaukpau ... ..	12,062	488	1,129	52	2,171	113
4	Sandoway ... ..	2,238	167	425	28	275	52
5	Rangoon ... ..	65,43	22,703	460	2,152	4,497	10,785
6	Hanthawaddy ... ..	4,831	2,733	396	1,903	4,247	812
7	Pegu ... ..	7,019	476	221	.....	3,622	217
8	Tharrawaddy ... ..	10,150	13	368	.....	6,396	.....
9	Prome ... ..	12,249	810	1,521	47	5,714	550
10	Ma-ubin ... ..	2,962	1,029	225	631	2,766	1,020
11	Pyapön ... ..	1,633	371	234	87	1,461	236
12	Bassein ... ..	13,386	1,458	709	597	4,793	989
13	Henzada ... ..	14,237	1,475	992	1,085	4,255	328
14	Myaungmya ... ..	9,132	915	1,625	764	5,529	96
15	Amherst ... ..	20,483	674	625	5	13,614	645
16	Tavoy ... ..	7,247	3,974	13,37	937	4,198	2,111
17	Mergui ... ..	6,566	64	505	35	3,462	64
18	Toungoo ... ..	6,161	1,313	169	359	3,773	253
19	Thatön ... ..	8,843	152	2,097	.....	4,477	.....
20	Salween ... ..	777	59	43	3	61	4
21	Mandalay ... ..	12,150	2,006	1,496	272	8,310	301
22	Bhamo ... ..	3,412	481	576	47	93	.....
23	Katha ... ..	4,322	288	505	260	431	232
24	Ruby Mines ... ..	3,249	...	101	.....	183	.....
25	Myitkyina ... ..	1,292	9	164	4	186	.....
26	Shwebo ... ..	12,033	263	208	36	3,982	40
27	Sagaing ... ..	15,394	5,434	1,787	172	.....	.....
28	Lower Chindwin ... ..	12,995	18,93	2,465	345	8,328	793
29	Upper Chindwin ... ..	7,612	9	329	.....	253	7
30	Thayetmyo ... ..	14,460	772	2,300	401	9,026	575
31	Paköku ... ..	15,238	375	2,851	213	7,346	138
32	Minbu ... ..	8,257	46	2,124	.....	839	18
33	Magwe ... ..	12,459	251	324	12	1,607	122
34	Meiktila ... ..	6,406	230	590	211	705	19
35	Yamethin ... ..	9,643	153	1,575	152	6,130	1
36	Kyaukse ... ..	4,227	126	380	.....	124	.....
37	Myingyan ... ..	13,078	484	1,544	86	11,343	386
38	Northern Shan States ... ..	2,168	89	137	56	1,374	23
39	Southern Shan States ... ..	18,450	168	575	.....	740	67
40	Chin Hills ... ..	4,410	137	80	.....	427	.....
	GRAND TOTAL ... ..	342,977	53,436	38,589	11,311	140,07	21,242

and the number of those persons who were successfully vaccinated in the Province of mentioned official years.

VACCINATED.

Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Total number.	Number successfully vaccinated.	Establishments.
1904-05.		1905-06.		1906-07.		1907-08.		1908-09.		
7		8		9		10		11		
138,435	109,201	162,044	144,074	126,106	111,283	148,497	133,229	147,185	134,451	Government.
59,410	46,168	64,883	52,398	59,352	48,431	48,060	41,811	43,072	38,908	Municipal.
166,339	141,628	181,999	160,428	167,418	148,271	138,772	119,609	138,167	122,307	Local Funds.
6,986	4,989	8,197	6,983	6,833	5,739	5,203	4,330	6,991	5,262	Native States.
9,516	7,152	9,812	7,272	10,690	7,180	10,443	7,457	7,562	5,287	Dispensary.
										ARMY.
25	14	66	38	24	14	59	36	37	35	Europeans.
379	215	304	183	281	143	408	279	455	396	Natives.
381,090	309,365	427,305	371,376	370,704	321,061	351,442	306,751	343,469	306,646	Total.

by Inspecting Officers during the year 1908-09 (Paragraph 8).

PERCENTAGE OF INSPECTIONS TO TOTAL NUMBER VACCINATED.				PERCENTAGE OF CASES FOUND SUCCESSFUL OF TOTAL NUMBER INSPECTED.				PERCENTAGE OF SUCCESS REPORTED BY VACCINATORS.		No.
By Deputy Sanitary Commissioner or Civil Surgeons.		By Native Superin- tendents or other Inspecting Officers.		By Deputy Sanitary Commissioner or Civil Surgeons.		By Native Superin- tendents or other Inspecting Officers.				
Primary.	Re-vaccina- tion.	Primary.	Re-vaccina- tion.	Primary.	Re-vaccina- tion.	Primary.	Re-vaccina- tion.	Primary.	Re-vaccina- tion.	
9	10	11	12	13	14	15	16	17	18	19
3.21	56.01	29.27	11.39	91.28	72.70	94.07	34.25	90.97	63.41	1
...	...	10.43	14.57	...	...	100.00	100.00	91.68	82.44	2
9.36	10.66	18.00	23.16	93.89	53.85	80.61	84.96	92.68	73.15	3
18.99	16.77	12.29	31.14	93.88	...	95.27	69.23	90.63	26.61	4
7.03	9.48	68.73	47.50	98.26	53.35	99.27	61.22	98.82	59.71	5
8.20	69.50	87.91	22.66	93.94	81.77	89.59	34.36	89.70	40.12	6
8.15	...	51.60	45.59	99.55	...	96.69	72.81	95.80	83.21	7
3.63	...	54.15	...	98.64	...	84.52	...	92.62	53.85	8
12.42	5.80	46.65	67.90	96.91	82.98	88.40	49.09	96.26	56.07	9
7.60	61.32	93.38	99.13	98.67	69.90	97.22	61.27	97.32	45.57	10
14.33	23.45	89.47	63.61	98.29	90.80	92.74	58.47	94.30	67.48	11
5.30	40.95	35.81	67.83	99.29	71.86	95.85	59.35	96.38	46.93	12
6.94	73.56	29.75	22.24	94.66	29.03	82.14	50.31	93.40	45.96	13
17.79	83.50	60.55	10.49	93.48	50.65	94.05	44.80	95.30	43.57	14
3.05	.74	66.46	95.70	95.52	...	93.53	53.64	94.47	54.32	15
13.45	23.58	57.93	53.12	95.81	38.53	92.14	34.34	90.93	34.52	16
7.69	54.69	52.73	100.00	90.69	40.00	93.65	56.25	89.97	54.24	17
2.74	27.34	61.24	26.88	92.31	69.08	87.99	57.51	94.41	46.67	18
23.71	...	50.63	...	95.57	...	92.23	...	90.17	16.67	19
5.53	.51	7.85	.68	79.07	...	98.36	100.00	82.81	41.85	20
12.31	13.56	68.40	15.00	93.60	56.99	94.04	71.76	97.24	66.67	21
16.88	9.77	2.87	...	63.06	57.45	100.00	...	92.52	47.95	22
11.52	90.23	10.54	97.92	75.45	70.77	90.26	71.99	95.34	...	23
3.11	...	5.63	...	100.00	...	87.43	...	82.44	...	24
12.69	44.44	14.63	...	65.85	...	79.37	...	88.48	22.22	25
1.73	13.69	33.09	15.21	90.87	86.11	97.36	80.00	95.05	73.49	26
11.61	3.17	...	...	89.87	79.07	...	...	96.93	78.19	27
18.97	18.18	64.09	41.78	96.84	49.86	97.54	59.40	98.57	69.75	28
4.32	...	3.32	77.78	94.83	...	86.56	28.57	90.51	...	29
15.91	51.94	62.42	74.48	85.43	78.55	86.95	72.17	88.41	72.25	30
18.71	56.80	43.21	36.80	91.48	40.85	95.59	7.25	95.77	24.56	31
25.72	...	10.16	39.13	92.84	...	99.28	38.89	95.49	58.14	32
2.60	4.78	12.90	48.61	80.86	75.00	92.53	77.87	95.51	80.10	33
9.21	75.36	11.01	6.79	99.15	70.62	89.65	89.47	98.51	91.67	34
16.33	93.35	63.57	.65	82.60	76.32	89.61	...	93.40	92.06	35
8.99	...	2.93	...	88.16	...	99.19	...	90.93	92.37	36
11.81	17.77	86.73	79.75	95.21	16.28	79.27	31.09	92.39	51.03	37
6.32	62.92	63.38	25.84	83.21	64.29	90.25	73.91	86.56	76.00	38
3.12	...	4.01	39.88	81.57	...	82.57	89.55	87.26	94.89	39
.68	...	9.68	...	100.00	...	100.00	...	89.07	88.89	40
9.79	21.17	40.84	39.75	92.22	59.56	91.14	56.58	93.58	59.30	



## APPENDIX A.

*Showing the ratio per 10,000 successfully vaccinated and the mortality from small-pox by quinquennial periods for Lower Burma only.*

Official year.	Ratio per 10,000 successfully vaccinated.	Quinquennial mean.	Calendar year.	Ratio per 10,000 of mortality from small-pox.	Quinquennial mean.
1	2	3	4	5	6
1893-04 ... ..	303.46	449.46	1893 ... ..	6.83	4.42
1894-95 ... ..	853.83		1894 ... ..	8.85	
1895-96 ... ..	448.91		1895 ... ..	3.41	
1896-97 ... ..	551.43		1896 ... ..	3.70	
1897-98 ... ..	586.66		1897 ... ..	4.32	
1898-99 ... ..	652.47	495.26	1898 ... ..	10.70	7.24
1899-1900 ... ..	678.31		1899 ... ..	13.21	
1900-01 ... ..	530.41		1900 ... ..	6.76	
1901-02 ... ..	352.69		1901 ... ..	4.45	
1902-03 ... ..	328.04		1902 ... ..	2.62	
1903-04 ... ..	353.66	344.74	1903 ... ..	2.30	6.86
1904-05 ... ..	324.89		1904 ... ..	2.38	
1905-06 ... ..	385.48		1905 ... ..	10.10	
1906-07 ... ..	359.61		1906 ... ..	14.19	
1907-08 ... ..	300.06		1907 ... ..	2.75	
1908-09 ... ..	297.50	...	1908 ... ..	1.34	

## APPENDIX B.

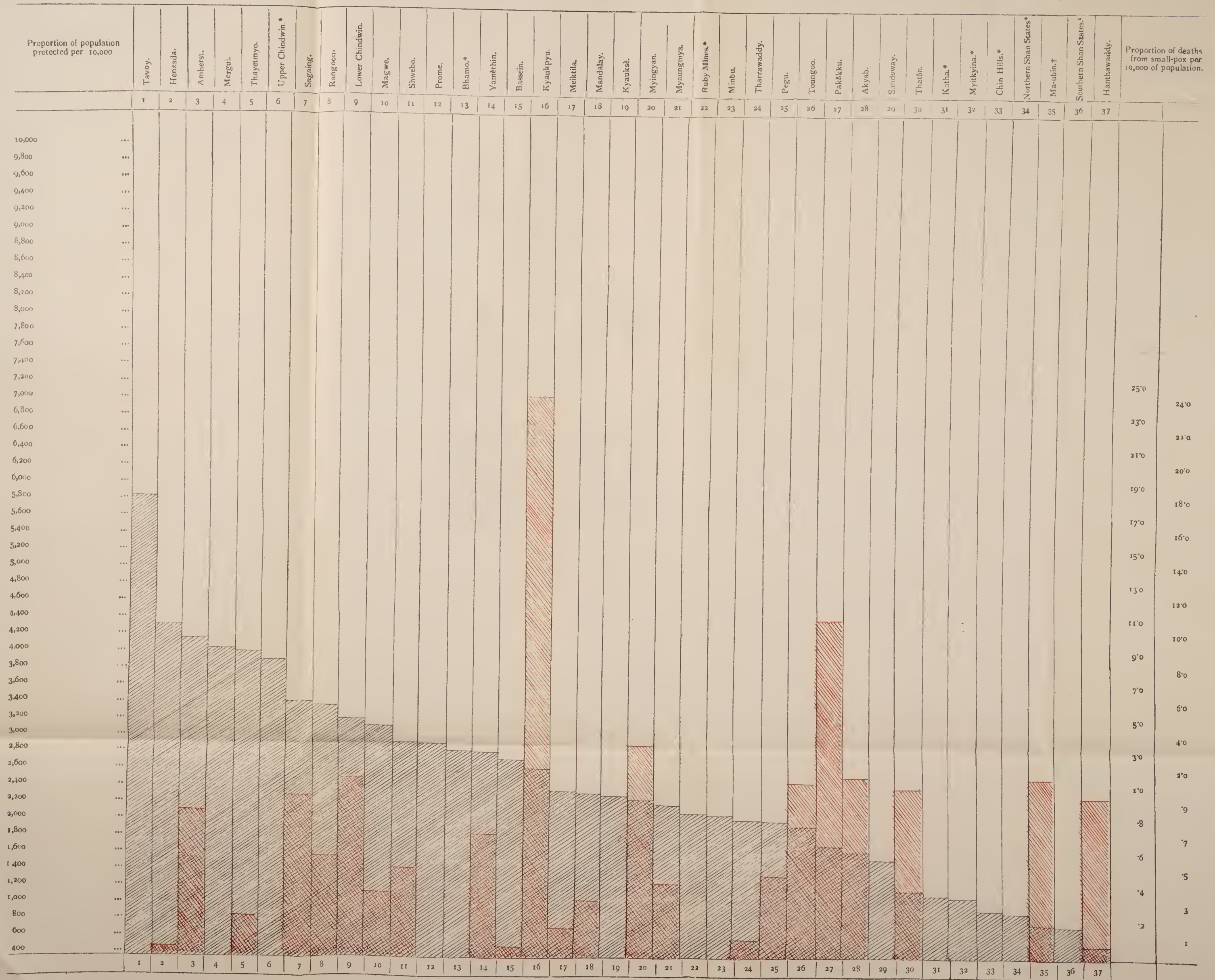
*Statistics relating to the number of children under one year of age in towns available for vaccination and the number of successful operations performed on them (Paragraph 5).*

Towns.	Number of births during the year 1908-09.	Number of deaths among children under one year during the year 1908-09.	Number available for vaccination after deducting the numbers who have died as shewn in column 3.	Number of successful vaccinations on children under one year during the year ending 31st March 1909.	Date of extension of Vaccination Act into towns.
1	2	3	4	5	6
Akyab ... ..	673	157	516	315	August 1883.
Kyaukpau ... ..	69	17	52	10	April 1894.
Sandoway ... ..	93	15	78	38	September 1890.
Rangoon ... ..	5,111	1,460	3,651	4,164	April 1884.
Pegu ... ..	518	146	372	285	March 1893.
Prome ... ..	834	335	499	606	June 1890.
Paungda ... ..	445	59	386	329	August 1890.
Gyobingauk ... ..	221	33	188	161	February 1897.
Letpadan ... ..	292	72	220	136	January 1897.
Thonze ... ..	236	54	182	107	October 1897.
Ma-abin ... ..	149	41	108	144	October 1891.
Yandoon ... ..	349	75	274	194	January 1892.
Pyapon ... ..	275	67	208	240	November 1904.
Kyauklat ... ..	227	70	157	279	15th December 1904.
Bassein ... ..	939	221	718	651	September 1888.
Ngathaingyaung ... ..	181	39	142	20	February 1890.
Myaungmya ... ..	114	26	88	120	June 1894.
Wakema ... ..	185	52	133	140	27th April 1907.
Henzada ... ..	755	172	583	394	January 1889.
Zaiun ... ..	200	59	141	157	August 1894.
Myanaung ... ..	264	49	215	226	July 1889.
Kyangin ... ..	322	46	276	185	August 1894.
Moulmein ... ..	1,263	241	1,022	1,411	August 1885.
Thaton ... ..	450	114	336	410	October 1891.
Kyauko ... ..	225	28	197	123	March 1897.
Tavoy ... ..	742	123	619	553	December 1889.
Mergui ... ..	539	105	434	403	October 1891.
Toungoo ... ..	452	142	310	398	May 1880.
Shwegyin ... ..	238	40	198	224	January 1890.
Mandalay ... ..	5,610	2,173	3,437	4,121	August 1891.
Sagaing ... ..	347	90	257	210	April 1894.
Monywa ... ..	236	40	196	299	March 1893.
Thayetmyo ... ..	401	90	311	360	May 1889.
Allanmyo ... ..	420	65	355	435	May 1901.
Yamabin ... ..	210	80	130	210	February 1892.
Pyanma ... ..	394	33	361	321	November 1891.
Myingyan ... ..	527	106	421	483	September 1891.
Shwebo ... ..	283	99	184	151	June 1894.
Pakokku ... ..	683	206	477	563	April 1892.
Kyaukse ... ..	246	75	171	138	May 1894.
Minbu ... ..	238	46	192	176	March 1896.
Salin ... ..	271	68	203	138	March 1896.
Taungdwingyi ... ..	202	101	101	61	February 1893.
Meiktila ... ..	226	76	150	52	June 1906.
Bhamo ... ..	155	24	131	90	26th October 1894.
TOTAL ... ..	26,860	7,470	19,390	19,981	



# APPENDIX C.

Diagram showing the proportion of Population protected during the seven official years from 1902-03 to 1908-09 and the death-rate from Small-pox during the calendar year 1908 in districts where Registration is in force.



Indicates proportion of population protected per 10,000.

Indicates rates of deaths from small-pox per 10,000 of population.

\* Registration of vital statistics is not carried out in these districts.

† Statistics of Pyawb have been included in Maubin.







NOTES AND STATISTICS  
ON  
VACCINATION IN BURMA

FOR THE YEAR 1908-09



RANGOON  
OFFICE OF THE SUPERINTENDENT, GOVERNMENT PRINTING, BURMA  
1909